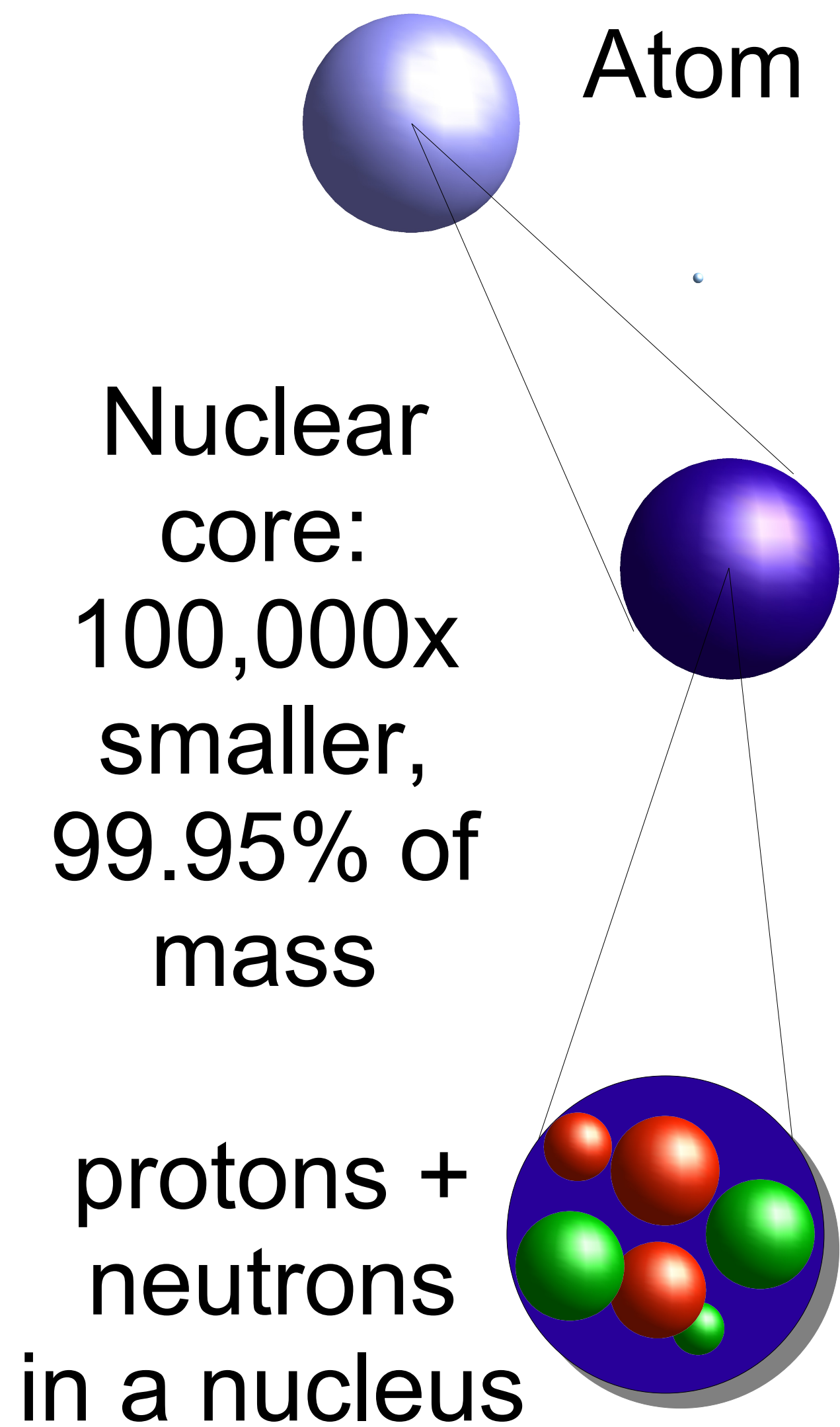


Deuteron Photodisintegration

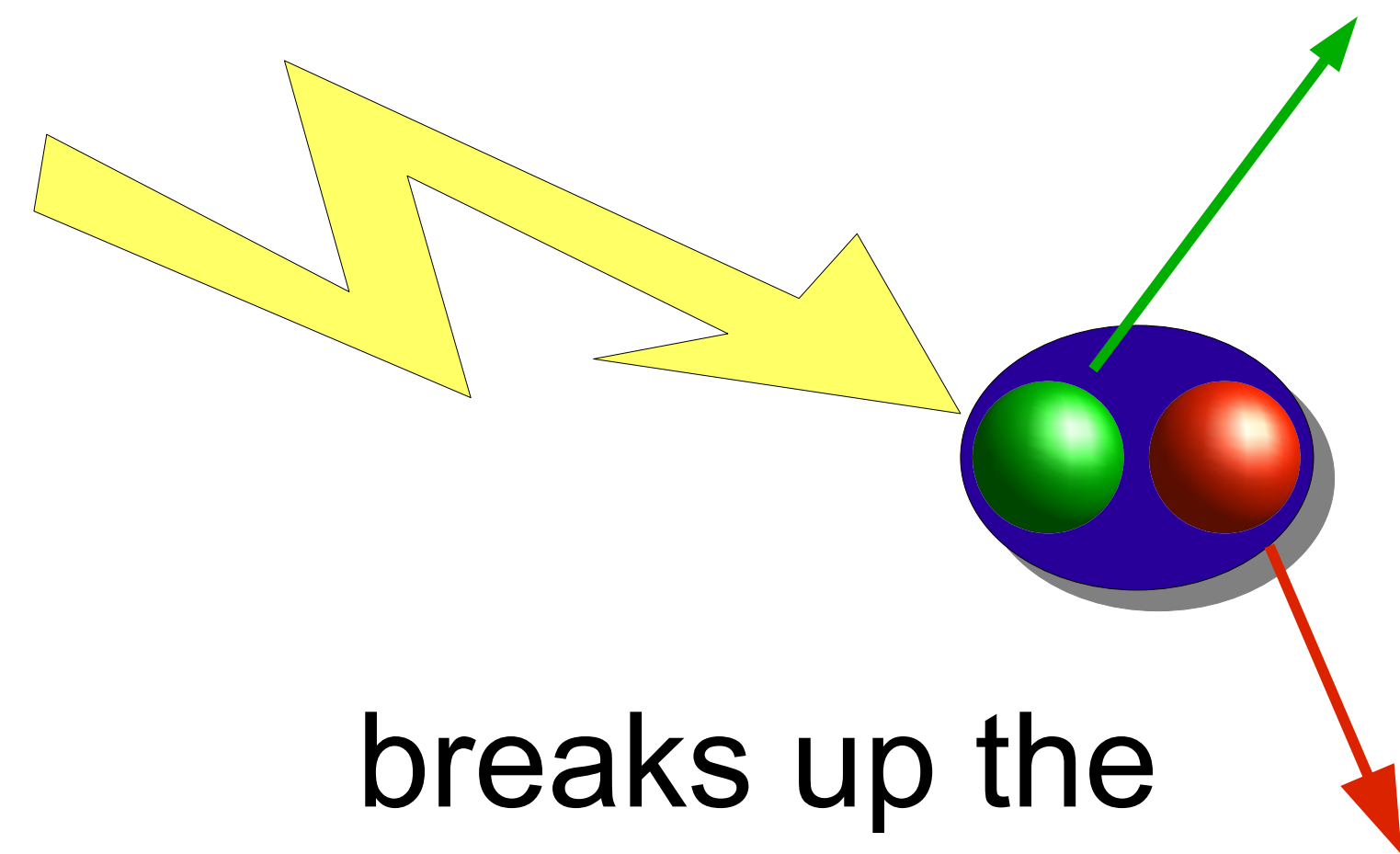
What is a Deuteron?



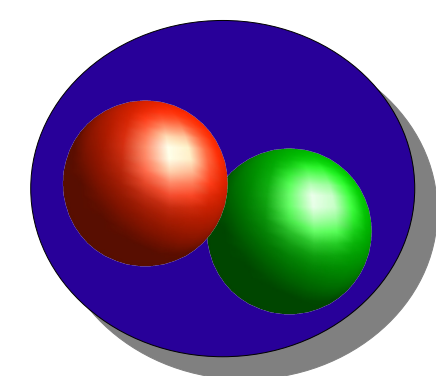
A deuteron:
1 proton + 1 neutron:
2nd simplest nucleus

What is Photodisintegration?

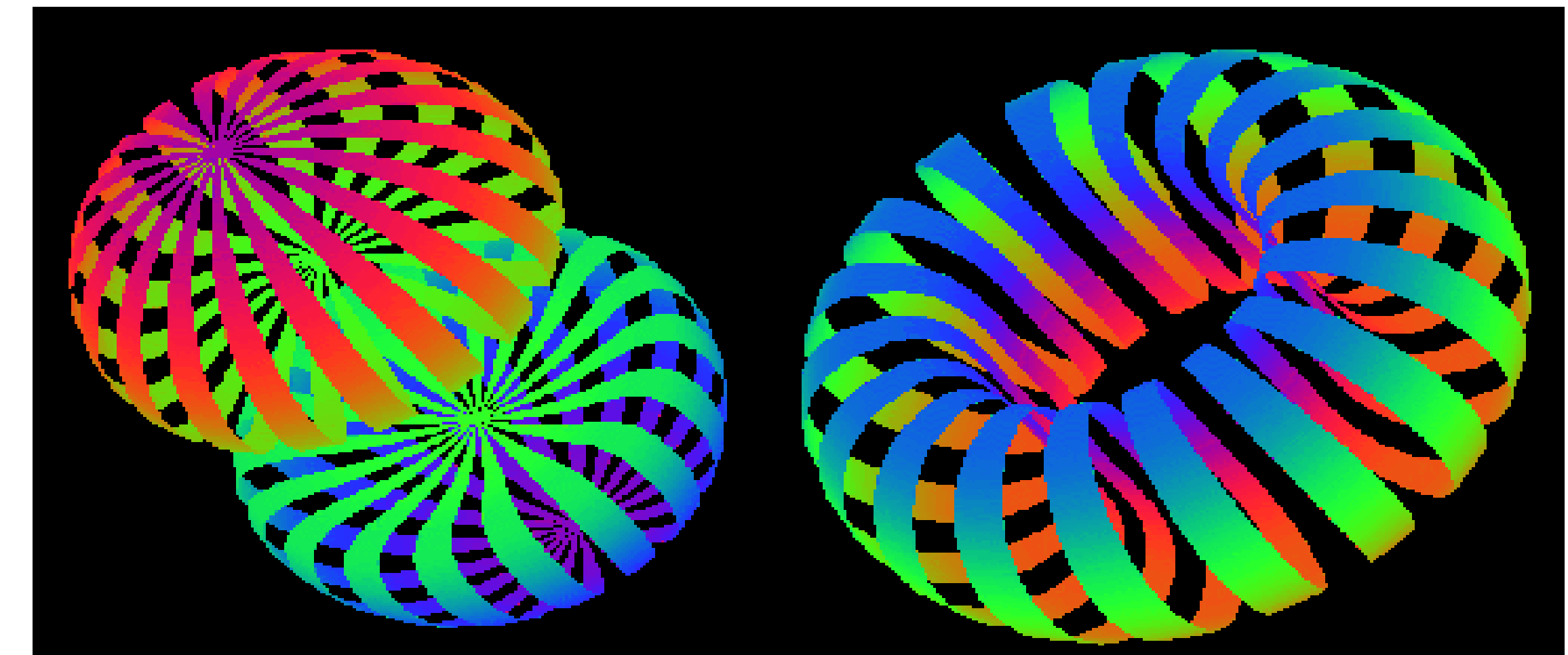
High energy light,
1,000,000,000 times
more than visible light



breaks up the
deuteron – we
detect the protons
coming out

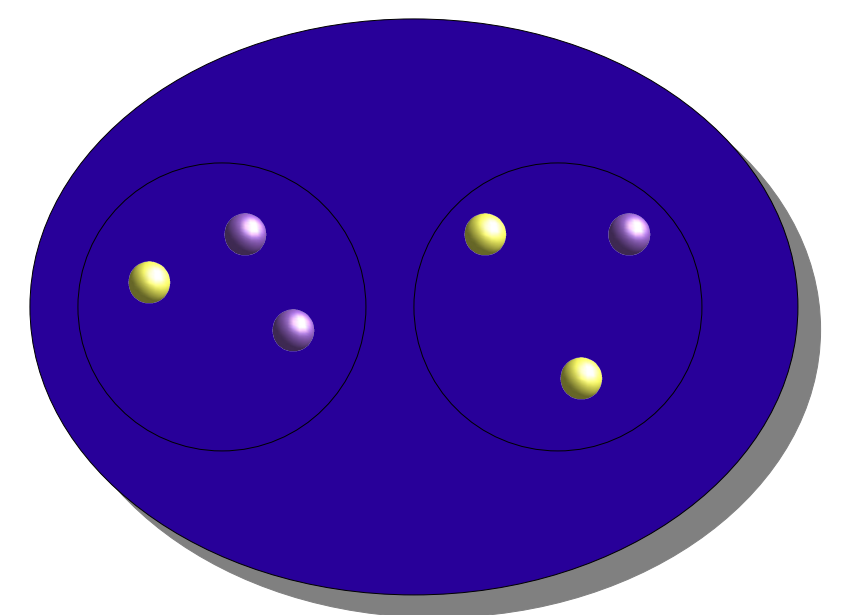


Why?



Conventional nuclear theory: the “photo” shows how the proton and neutron are distributed, like a dumbbell (left) or donut (right) depending on how the spins point

But nucleons are made up of quarks – breaking up the deuteron at high energies shows the role of the quarks in the deuteron



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